Nanocarrier-Cell interaction

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Stellingen

behorende bij het proefschrift

"Nanocarrier-Cell interaction: exploring the cell surface & intracellular trafficking"

van Zia ur Rehman (2012)

1. If viruses are considered 'smart', in the sense that they can exploit the cellular machinery for their own purpose, then cells should be considered 'stupid', because they facilitate viral transmission. (e.g. Nat Cell Biol. 2007 Mar; 9(3):310-5. Epub 2007 Feb 11)
2. The suggestion that the pKa of ionizable lipid-based nanoparticles may have a predictive value for the efficiency of siRNA delivery in vivo, is highly premature because of a lack of supportive experimental data (Nature Biotechnology 2010, 28, 172-176)
3. When DAPI and lysotracker show colocalization in cells, one should seriously consider optimizing the staining protocol. (Int J Pharm. 2012 May 1; 427(1):71-9. Epub 2011 Oct 21).
4. If all polyplexes, internalized into cells, would effectively deliver their nucleic acid cargo, they would be more potent in terms of transfection efficiency than their viral counterparts.
5. The application of nanoparticle-mediated delivery of siRNA for therapeutic purposes does not require nuclear translocation, a limiting step in overall delivery; this makes it a prime example of the expression 'necessity is the mother of invention'. (*Cell* 150, 883–894, 2012).
6. In science one should never lose sight of one's goal, and always believe that everything is possible.
7. Although 'experimental design' may suggest considerable novelty in approach, the strategy is frequently based on existing methodologies in a laboratory
8. For many foreigners, typical Dutch food like 'stamppot' , 'boterham met kaas', 'beschuit met muisjes', 'aardappelen', 'champignons', and 'hagelslag' is rather tasteless; in that context, the courtesy term "eet smakelijk" is particularly remarkable.